Claims

1. A fuel injection valve for internal combustion engines with a valve body (1) that contains a bore (3), which is delimited at its end oriented toward the combustion chamber by a valve seat (9) and whose end region oriented toward the combustion chamber has at least one injection opening (11), and with a piston-shaped valve needle (5), which is contained in the bore (3) in a longitudinally sliding fashion and has an essentially conical valve sealing surface (7) at its end oriented toward the combustion chamber, by means of which the valve needle (5) cooperates with the valve seat (9) so that when the valve needle (5) is resting against the valve seat (9), the at least one injection opening (11) is closed, and when the valve needle (5) is lifted away from the valve seat (9), fuel flows between the valve seat (9) and the valve sealing surface (7), through the injection openings (11), characterized in that the valve seat (9) has a first conical partial surface (109) and a second conical partial surface (209), wherein the second conical partial surface (209) is disposed downstream of the first conical partial surface (109) and is raised in relation to it.

2. The fuel injection valve according to claim 1, characterized in that in its closed position, the valve needle (5) rests against the second conical partial surface (209).

3. The fuel injection valve according to claim 1, characterized in that the second conical partial surface (209) has the same cone angle as the first conical partial surface (109).

4. The fuel injection valve according to claim 1, characterized in that the second conical partial surface (209) is raised by 2 mm to 20 mm in relation to the first conical partial surface (109).

5. The fuel injection valve according to claim 1, characterized in that downstream of the second conical partial surface (209), the valve seat (9) is provided with a third conical partial surface (309), which is recessed in relation to the second conical partial surface (209).

6. The fuel injection valve according to claim 1, characterized in that the valve sealing surface (7) is provided with a sealing edge (17) that rests against the second conical partial surface (209) when the valve needle (5) is in the closed position.